

REMARKS

I. Status of Claims

Claims 8-24, 26, and 31-33 are pending in this application. Claims 1-7, 25, and 27-29 have been canceled. Claims 9, 12, 14, 15, 17, 20, 22, and 23 have been amended. Support for the amendments can be found in the specification for the following reasons.

Support for adding the substituent -OH in defining "Ar" is found in the specification as follows. Specifically, the specification discloses, on page 4, that the substituent of Ar can be -OR₁, and that R₁ can be hydrogen. In one embodiment, the substituent of Ar can be -OH. Specification, page 20, paragraph [0118]. Furthermore, the specification discloses, for example, compound 22 on page 75, compound 32 on page 77, compounds 40 and 41 on page 78, compound 43 on page 79, compounds 48 and 52 on page 80, compound 53 on page 81, compound 155 on page 106, and compound 164 on page 107, wherein one of the substituents of Ar is -OH. Thus, the amendment does not add new matter.

Support for adding "wherein when Ar is a 9-membered bicyclic heterocycle containing one or more heteroatoms selected from N, O and S, Ar is unsubstituted" is found in the specification, for example, at page 4. There, the specification discloses that Ar "is unsubstituted or at least monosubstituted aryl or heteroaryl," wherein "heteroaryl is a 5 to 10-membered . . . bicyclic heterocycle containing one or more heteroatoms selected from N, O and S." Specification, page 4. The specification also discloses, for example, compound 159 on page 106 and compound 176 on page 109,

wherein the Ar is an unsubstituted, 9-membered bicyclic heterocycle. Accordingly, this limitation does not introduce new matter.

New claims 32 and 33 have been added. Each of the compounds recited in new claims 32 and 33 has support in the specification as shown below:

“6-(4-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide” is compound 29, disclosed on page 76 of the specification;

“6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide” is compound 41, disclosed on page 78 of the specification;

“6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide” is compound 49, disclosed on page 80 of the specification;

“6-(4-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide” is compound 51, disclosed on page 80 of the specification;

“4-[5-(4-chloro-benzylcarbamoyl)-6-oxo-1,6-dihydro-pyridazin-3-yl]-3-methoxy-thiophene-2-carboxylic acid” is compound 197, disclosed on page 113 of the specification;

“6-(5-carbamoyl-4-methoxy-thiophen-3-yl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide” is compound 207, disclosed on page 115 of the specification; and

“4-([6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carbonyl]-amino)-methyl)-benzoic acid” is compound 225, disclosed on page 119 of the specification.

Further, support for new claims 32 and 33 is also found in the specification, such as original claims 9 and 17.

Therefore, Applicants have not introduced any new matter by the amendment, nor does the amendment raise new issues or necessitate the undertaking of any additional search of the art by the Examiner.

II. Obviousness-Type Double Patenting Rejection

The Examiner has maintained the rejection of claim 8 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of co-pending Application No. 10/715,556. Final Office Action, page 3.

Solely to advance prosecution, Applicants have filed a Terminal Disclaimer. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection. In addition, because claim 8 is only subject to this rejection, Applicants respectfully request that the Examiner indicate claim 8 is allowable after withdrawing this rejection.

III. Rejection under 35 U.S.C. § 112, First Paragraph, Written Description

The Examiner has maintained the rejection of claims 9-15, 17-24, 26, and 31 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Final Office Action, pages 4-5. Specifically, the Examiner alleges that the new provisos recited in claims 9 and 17, *i.e.*, provisos (2) and (3), lack description. *Id.* The Examiner suggests deleting substituents from formula (1) to overcome the rejection. *Id.* at page 5.

Applicants respectfully submit that claims 24 and 31 do not contain provisos (2) and (3). Therefore, claims 24 and 31 should not be subject to this rejection.

As to the remaining claims, Applicants respectfully traverse the rejection. However, solely to advance the prosecution of this application, Applicants have deleted provisos (2) and (3) recited in claims 9 and 17 as set forth above. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection.

IV. Rejection under 35 U.S.C. § 112, First Paragraph, Enablement

The Examiner has also maintained the rejection of claims 9-16 under 35 U.S.C. § 112, first paragraph, for lack of enablement for the reasons of record. Final Office Action, pages 6-18. In addition, the Examiner asserts that “[t]he burden is on applicants to show that the *in vitro* data in their specification correlates to the treatment of myriad diseases including cancer and neurodegenerative diseases in general.” *Id.* at page 19. The Examiner further asserts that “[t]here is nothing in the disclosure that correlates the *in vitro* data to the treatment of the diverse disorders embraced the instant claims.” *Id.* Applicants respectfully disagree and traverse the rejection for the reasons of record, supplemented as follows.

The Examiner has failed to point to any evidence rebutting the correlation between the inhibitory potency of GSK-3 β or the phosphorylation of the Tau protein *in vitro* and *in vivo*. The Examiner’s analysis in the final Office Action, including the discussion of the Wands factors, appears directed to the rejection of original claims 17-28, which recite methods of treating diseases, such as neurodegenerative diseases and cancer. Those assertions, however, do not establish the nonenablement of claims 9-16,

which are directed to the method for inhibiting GSK-3 β or the phosphorylation of the Tau protein *in vivo*. Therefore, Applicants respectfully request that the Examiner withdraw this rejection.

V. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application, and the timely allowance of the pending claims.

If the Examiner believes a telephone conference would be useful in resolving any outstanding issues, the Examiner is invited to call the Applicants' undersigned representative at (202) 408-4218.

If there is any fee due in connection with the filing of this response, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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By: 

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